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SATURDAY, JULY 9, 1836.

Chess.

A respected correspondent in the South, says in a letter just received, "If the mutilation of wheat is one of the causes of its turning to *cheat*, the present season should exhibit almost an entire transmutation. Two or three weeks ago, a gentleman called in, and told me that in a neighboring field, he could find scarcely any thing but *cheat;* and as he knew wheat was sown there, he could not help thinking it had degenerated. I replied by saying that I had not examined my own field for cheat, but I was certain *the seed was pure;* that the fly had been at work there as well as every where else; and that if he could find more than a scattering bunch, here and there in the field, he might freely enjoy his opinion as far as I was concerned. We accordingly walked in the field, and *not a plant of cheat could be found.*"

Every experiment made to prove the transmutation of wheat that has come to our knowledge, has been so ambiguous, and so loosely conducted, that minds habituated to close reasoning could place no confidence in the results. To cast a seeming shade of probability over the notion, is the utmost that has been done. On the other side it has been met by facts that admit of but one explanation. For instance, when the wheat in two fields has been mostly destroyed by the fly or the winter: and *one* abounds in chess while the other is destitute, we think there is no way to escape the conclusion that *it cannot grow except from its own seed.*

A Bad Weed.

In some parts of Cayuga county, a weed has got in, of which great complaints are made. It very much resembles the May Weed (*Anthemis cotula*); and from such examination as we have given it, appears to be the *Anthemis arvensis*, which is either indigenous to England, or naturalized there, and from whence the seed has been probably introduced. The May Weed is strictly an *annual*, and on this account it can only succeed where the grass or grain is thin; but its congener is a *biennial*, becomes well rooted in the fall, and is ready to start vigorously in the spring. Like the Red Root or Stein Kraut, it crowds among the wheat, robs it of its nourishment, and greatly diminishes the crop.

No good farmer can hesitate about the course that he ought to pursue when he finds it in his fields; for he must either extirpate it, or suffer losses equivalent to high rents and heavy taxes.

Stir the Earth.

Somebody has said, that "a rusty hoe in June was a sure sign of a poor farmer," and we are inclined to believe the remark correct. It is an indication that there are weeds in the garden, weeds and grass in the corn, and that the thistle, dock, johnswort, bur-weed, and the thousand other pernicious things that require the application of the hoe, are flourishing unmolested. Farmers we think are very apt to underrate the great advantages of clear fields, and frequent stirring of the surface of the earth. It requires as much room and nourishment to produce one stout weed, as it does to furnish the farmer a pint of corn; and though few are willing to admit their belief that weeds benefit a crop, yet there are thousands who act as if this were a proposition that could not be disputed. The most slovenly farmer in existence, is pleased with the sight of a house where the yards are all in order, the garden well planted and cultivated, the corn carefully hoed and wed, and the grain crops free from stein krout and the Canada thistle; yet by a singular species of infatuation, what he admires in others he is careless about in his own case, and his whole premises bear most abundant proof that his hoe is habitually rusty in June. There are many who suppose that to work in the garden, or hoe corn, or in short to do any thing which requires the ground should be stirred, is injurious in dry weather, and that in such cases vegetables do better to remain undisturbed. This is a great mistake, and to convince one that it is so, let one spot be stirred every day with the hoe, and another remain untouched, and see, after a few days have elapsed, in which cases the moist earth rises nearest the surface. The earth that has been moved will be light and moist, and consequently favorable to vegetation, while the untouched will be dry, hot, and hard, and unfit to be near plants. In hot dry weather to heap the burning earth round a hill of corn or cucumbers, would undoubtedly be injurious, if not fatal; but that does not necessarily follow frequently stirring the surface and keeping it light and loose. All hilling of plants, unless in extraordinary cases, is useless, but worst of all in hot dry weather. The earth heaped around corn or potatoes, as is generally practiced, must be taken from the vicinity of the plants, leaving many of the roots entirely exposed, and all more or less subjected to a new and unnatural state of heat. In hot weather then let the hoe be used liberally, but not in heaping up the earth, or hilling plants. Every merchant, mechanic, or professional man, should have some garden spot in which he can spend an hour of every summer's morning. In that hour he may not gain as much money perhaps as he would at his desk, but he will find what is better, pure air, sweet flowers, gentle exercise, and in the result of the whole, good spirits and renewed health. C.

Diseases of Lambs—Inquiry.

The following is from a letter from a friend in Warren county, (Pa.) and we shall be pleased to hear from some of our readers on the subject:

"As a malady attended my lambs this season altogether new to me, I will state the treatment my sheep received, from the 15th of last eleventh month until after lambing this spring, in hopes some more experienced farmer than myself may detect the cause and point out a remedy for the disease.

"At the time above mentioned, I had 95 sheep all in good order except 2 or 3, which had been injured and become poor. At that time I divided my flock into three parcels, putting the breeding ewes, the lambs, and the weathers by themselves. With the ewes, 49 in number, I put two good healthy bucks, one 2 and the other 5 years old. Foddered 3 times a day with red clover hay, cut in the blow, well salted, but somewhat heat in the stack. The ewes and lambs, in addition to the hay, I fed once a day with oats in the sheaf, cut green and cured in small stouts or shocks. When my oats failed, about the middle of the second month, I fed them the cap-sheaves of my wheat, which were something grown in the field. They all wintered well with the exception of four, which commenced poor and died before spring. I do not know of more than 36 ewes having lambs, and from those I raised but 15 lambs—all the others were either lambed dead, or died within one or two days after with a swelled throat—a hard protuberance from the size of a butternut to that of a hen's egg on each side on the glans of the throat, which caused a difficulty of breathing. They all appeared very feeble, and all except two or three that had those bumps died. The lambs which survived, and my whole flock of sheep, have since appeared healthy and thrifty."

Blossoming of the Pear.

The following extract from the interesting journal of Messrs. Reed and Matthesson, will place in a striking light the difference of temperature existing between the continents of Europe and America, in places lying in nearly the same latitude. The writer says—"My pear trees were showing blossoms on the 12th of March before I left home. In New Jersey, and around Baltimore, the blossom of the peach and pear tree were fully out on the 16th of April; at New York on the 1st of May; at Boston on the 16th; and at Quebec the 12th of June." Quebec is in latitude 46 degrees 47 minutes north, and London 51 degrees 31 minutes north; a difference of 4 degrees 44 minutes in favor of the former; yet the difference of vegetation in favor of the latter was precisely three months. This difference in temperature it is difficult to account for satisfactorily, yet it exists on the same parallels of latitude to an equal extent still farther south, the continent of Europe producing the olive, orange, fig and grape, on the same degrees that with us produce the apple and peach only, and where the others can scarcely exist with all the protection that green and hot houses can furnish. C.

Summer Flowers.

(In a letter of the 1st instant.)

Pentstemon diffusum is of recent introduction to our gardens. It is a hardy perennial of one foot or more in height, many stems rising from the same root, and differing sufficiently in appearance from every other plant that I have seen. The flowers with different shades of purple, grow in small panicles, some on opposite sides of the stem and some on its summit. It is a pretty plant.

Gilia achillæfolia has flowers of a bluish purple crowded in heads. It is a smaller plant than *G. capitata*, also an *annual*, and though not destitute of beauty, is scarcely so deserving of cultivation.

Pulmonaria paniculata is less elegant in its leaf than our native species (*P. virginica*) yet it deserves a place on account of its light blue flowers. It is a perennial from Hudson's Bay.

In a former letter, I mentioned *Campanula glomerata*. It has a *white* variety which contrasts prettily with the former.

The leaf and flower of *Verbascum paniculatum* has much the aspect of the common Mullein, but its stalk differs widely in appearance. On one that is now covered downwards more than two feet from its summit with yellow blossoms, there are more than seventy branches. It is a magnificent biennial, and the mass of bloom it exhibits, is very fine.

Geum quelyon is a native of South America. It was kept the first winter after I procured it, in a Green House; but during the last, in a sheltered border, where it survived that long dreary season without injury. It received however, more than ordinary care. A box about fifteen inches each way, was turned over it, which shut closely round it; and over this there was another cover. It appeared that the warmth rising from the earth below was sufficient to preserve the temperature above the freezing point, for whenever I took off the inner box, I always found the soil unfrozen. This plant however, is not so tender as we might expect. This spring it endured without danger and without shelter, the very severe frost that we had in the fifth month. The flowers are a bright orange at first, gradually fading into a brick red; and though not splendid, it is ornamental, and adds to the variety of the border.

I raised *Dracocephalum Ruyschianum* from seeds imported from England. It stood three seasons without flowering; and when it first came into bloom, I thought it quite unequal to the commendations it had received in the Edinburgh Encyclopædia. Since that time it has much improved in beauty. The flowers are blue in short thick spikes, and make a fine display. The leaves greatly resemble those of the Hyssop.

I received a plant under the name of *Hyacinthus comosus*, which is probably the *Muscari comosum v. monstrosum* of modern botanists; and though truly a monster, yet it is very ornamental. I shall not attempt to describe such an oddity, except that the inflorescence is pyramidal and of a reddish purple. It differs however in some particulars from Loudon's account in the Encyclopædia of Plants, who represents it as blooming in "April and May" with *blue* flowers and growing half a foot high; yet in the SPECIFIC CHARACTER it has "long stalks;" and when sterile, as in the present case, it has "very long stalks"—all within the length of six inches! My plants are more than a foot high, and are now in their glory.

Aquilegia stellata appears to be only a variety of *A. vulgaris* without nectaries. The petals are shaded with red and white—not splendid but pretty.

Fruit.

Few years have exhibited greater promise of plenty of fruit than the present. The apple, plum and cherry, are unusually full; pears not so plenty, and peaches very few. The peach suffered severely from the last winter, and many trees that looked in the spring as if they had escaped unhurt, are now nearly or quite dead; the few tufts of leaves they did put out are now drying up, a sure indication that all is over with such trees. The curculio has done much less damage this spring to the fruit than usual, the crescent mark being visible on but few of the young plums and cherries. This fact we attribute to two causes—first, there were last year but few plums, consequently but little opportunity for the insect to perpetuate the race of curculios—and secondly, the fine weather of the forepart of May brought forth the winged insect prematurely, and before the young fruit was ready for their operation. We saw a few on the trees a number of days before the blossoms were fully opened, and as their time is short it is probable they perished before the fruit was sufficiently developed. G.

From D. P. King's address before the Essex Agricultural Society.

Successful Farming.

We have been accused of cropping our lands severely without cultivating and manuring them in any reasonable proportion, of mowing our fields many years in succession till their over taxed, exhausted energies can yield us nothing more. The high prices of labor and manure, and the difficulty of obtaining them, have been alleged as excuses of this thriftless and cruel practice, and there is something of truth and more of plausibility in the defence. As a remedy for these evils, and a sure way of improving your land, I can do nothing better than to recommend to you the method practised for several years with great success by Elias Phinney, Esq., of Lexington. Without offering an apology to Mr. Phinney, I shall make an extract from his Address delivered before the Society of Middlesex Husbandmen and Manufacturers, in 1830.—"In May, 1828, the field (the soil of which is thin loam upon a gravelly sub-soil) having lain three years to grass, and the crop of hay so light as to be worth not more than the expense of making, with a view of ascertaining the quantity of vegetable matter upon the surface, I took a single foot square of green sward, and after separating the roots and tops of the grasses from the loam and vegetable mould, it was found on weighing to contain nine ounces of clear vegetable substance, giving, at that rate, over twelve and a quarter tons to the acre. This convinced me of the importance of taking some course, by which this valuable treasure might be turned to good account.—That a great part of this vegetable matter is exposed to useless waste, by the usual mode of ploughing, cross ploughing and harrowing, must be obvious to any one. In order, therefore, to secure this, as well as the light vegetable mould at and near the surface, which is liable to waste from the same causes, I had two acres of the green sward of this field turned over with the plough as smoothly as possible. After removing the outside furrow slices into the centre of the plough-land, and thereby effecting the double purpose of covering the vacant space in the middle, and preventing ridges at the sides and ends, the field was rolled hard with a loaded roller, by which the uneven parts of the furrows were pressed down, and the whole made smooth. It was then harrowed lengthwise the furrow, with a horse harrow, but so light as not to disturb the sod.—Twenty cart loads of compost manure, made by mixing two parts of loam or peat mud with one of stable dung, were then spread upon each acre. It was then harrowed again as before, and then the poorer part of the soil, which had been turned up, and remained upon the surface, was thereby mixed with the compose manure. Corn was then planted in drills* upon the furrows, the rows being at the usual distance and parallel with the furrow. At hoing time the surface was stirred by running a light plough† between the rows, but not so deep, at this or the subsequent hoing, as to disturb the sod. What Mr. Lorain calls the "savage practice of hilling up the corn, was cautiously avoided. In the early part of the season, my cornfield did not exhibit a very promising appearance; but as soon as the roots had extended into the enriching matter beneath and began to expand in the decomposing sward, which had now become mellow, and more minutely divided by the fermentation of the confined vegetable substances beneath, than it could have been by the plough or hoe, the growth became vigorous, and the crop, in the opinion of those who examined the field, not less than seventy bushels of corn to the acre. As soon as the corn was harvested, the stubble was loosened up by running a light horse plough lengthwise, through the rows, the surface then smoothed with a bush harrow, and one bushel of rye, with a sufficient quantity of herd's grass and red top seed, to the acre, was then sowed, the ground again harrowed and rolled. The crop of rye was harvested in July following, and the two acres yielded sixty-nine and a half bushels of excellent grain, and over five tons of straw. The grass seed, sowed with the rye, took well, and the present season I took, what those who secured the crop judged to be two and a half tons of the very best of hay from each acre.

Thus, with one ploughing, with the aid of twenty cart loads of compost manure to the acre, I have obtained two crops of grain, and stocked the land down to grass."‡

The great object of the farmer is to obtain the most valuable products, with the least possible labor, and at the same time to keep his farm in a state of progressive improvement; by this method large crops have been obtained with a small expense of labor and manure—but some of little faith may object that it is the result of a single experiment, that there may have been something peculiar in the soils or the seasons, that with others it would have been a complete failure, and that most likely the land soon became exhausted. But Mr. Phinney has practised and continues to practice the same kind of husbandry with the same success, and with increasing confidence. The field on which he made the experiment which he has so clearly and satisfactorily detailed, has remained in grass till the present season, and has continued to yield two tons of good hay to the acre, without any top dressing. Other farmers have followed the same method on a great diversity of soils, and although a plain field and a loamy soil may be best adapted to the purpose, there are none except very wet or very rough and rocky grounds which cannot be greatly improved by it. There is nothing unreasonable or unphilosophical in this method, and success would seem to follow it as naturally as effect follows cause. I know that there are many farmers who believe that the *good old way* is the best way, let the most incredulous of these

* It might be planted in hills, if that course is preferred.

†Mr. P. now uses the cultivator instead of the plough.

‡ William Clark, jun., of Northampton, and Daniel Putnam, of Danvers, have adopted similar methods of husbandry, and have been very successful.

visit the farm of Mr. Phinney, which but fifteen years ago produced but nine tons of hay, and which now produces seventy; let him go into those well mellowed fields and see the corn waving in its beauty and ripening into a golden harvest, yielding nearly one hundred bushels to the acre, and potatoes in equal abundance; let him witness all the improvements of that well managed and thoroughly cultivated farm, (which, in natural advantages, perhaps, does not exceed his own,) and that sceptical farmer, who went out hesitating and unbelieving, will come home with a settled conviction that Mr. Phinney is a farmer of great skill and enterprise, enlightened by a sound judgment: he will cheerfully admit that his method of cultivation is a great improvement, and he will apply it to his own farm as far as circumstances will allow. I should not have dwelt so long on this subject, if, from my own observation and the experience of others, I had not been fully satisfied that the adoption of a similar method of husbandry would be beneficial to our own fields.

From the Farmer & Gardner.

Management of Horses.

The feeding of horses is a thing which for the most part is indifferently attended to in this country, and indeed the *system of feeding* which has been adopted, is but ill calculated to preserve these noble animals in full health and unimparred strength and vigor of body. With many planters and farmers, nothing but corn and oats, in the whole grain, are doled out from one end of the year to the other. Now these are each highly nutritious and excellent substances, and well calculated to sustain horses under long continued and laborious work; but then are they not both too heating to the blood, and too difficult of digestion to be given without change during the whole year? Would it not be better, putting the saving out of the question, to reduce those grains to something like digestible substances. Whether the horse be fed upon corn or oats, in the whole grains, they necessarily avoid a large portion of them in precisely the same state in which they are received into the stomach. This fact is too well established to be denied at this late day, and hence it follows that all portions of grains which are eaten by the horse and not digested, serve but to irritate the coat of his stomach, inflame his blood, and, by necessary consequence, disease the whole system.

The health of a man's family is very properly said to be dependent as much upon his cook as upon any other earthly agent, whether referable to physical or atmosphere causes. Writers upon human health invariably recommend plainness of diet, moderation of exercise, and general temperance, and the substances which are most earnestly commended to favor, are those which afford the most bland nutrition, and which are easiest of conversion into chyle. If these recommendations hold good with respect to human diet, we would ask, are not the same general laws of nature applicable to the horse? If man lives luxuriantly and feeds upon high seasoned luscious food, the chances are as ten to one against him that he will get the gout or some inflammatory disease; and if he feeds upon substances difficult of digestion, he is just as sure to be visited with that worse than pestilent distemper,—the dyspepsia. Ah! but would you compare the horse to man? we think we hear some one ask; and lest our motives may be mistaken, we will take the liberty of replying to the query in advance of its being solemnly put to us.—We do not compare the horse to the man, but we hold it as of a truth which admits not of contradiction,—that all alimentary substances, to be profitable to the stomach of either man or horse, should be not only nutritous and bland, but should be eaten in that state in which it is best calculated to undergo the digestive process.

Mastication does much to prepare the food of the horse for the operation; but the evidences which are offerded by the substances avoided by this animal, incontestibly show that it fails most lamentably in the performance of this highly necessary work. In England, where the management of stock generally, and particularly of the horse, is reduced to a matter of science, but few intelligent feeders think of giving food to that animal in an uncrushed state; nor do they confine them to grain-feeding alone, and for the assigned reason, that it is too *heating*. Potatoes and Ruta Baga from a part of the feed of the studs of most English country gentlemen; by which means they keep their horses in better health; the occasional feeding with roots serving to open their bowels, cool their blood, determine the secretions to the surface, render the skin loose, and the hair silky and healthy. We have said that independently of the saving which is thus effected, the other reasons are sufficient to justify a resort to the practice, and we would ask are not the melioration with the animal to which we have just alluded, sufficient of itself, to make it an object worthy of every consideration? We think it is, and should be rejoiced to find that our suggestions were improved upon by American horse owners, for we honestly believe that infinite good both to master and beast would inevitably result from it.

Essex, Mass. Agricultural Society.

We love to refer our readers to this society, because it is an old one, has done and is doing much good, and its organization and means promise to perpetuate its usefulness. It has been eighteen years in operation. Its permanent vested funds exceed $6,000, the income of which is about $600 are annually drawn from the state treasury, thus affording the society about $1,200 per annum, to be awarded in premiums, and to defray expenses. Their proceedings are annually published in a handsome 8vo. pamphlet, of about 100 pages, the last of which has been kindly sent to us by the secretary, J. *W.* Proctor, Esq. The address affords a happy illustration of the advantages which have resulted from agricultural societies *down east.* "I suppose," (we quote the words of a reverend clergymen)—"that ten bushels of rye to the acre, twenty of Indian corn, one ton of English hay, and 200 bushels of potatoes, were formerly considered as average crops. Since premiums have been offered, we have claims for from forty to fifty bushels of rye, from one hundred to one hundred and twenty-two of corn, from three to four tons of hay, and from four to five hundred bushels of potatoes.—Our improvements have not been confined to single acres; in several instances the products of entire farms have been more than quadrupled."

We extract from the pamphlet of 1835, some facts from which others may profit. D. Putnam drilled in half an acre of corn, one-third early in May, one-third late in that month, and the other third 10th June, *to furnish a succession of green food for his cows.* The produce amounted to eight tons. Mr. Putnam has an acre of irrigated meadow, the product of which was *one and a half tons of hay!*

Elias Phinney, of Lexington, raises *three good crops with one plonghing*, viz: corn, rye and grass. His practice is, to manure well a piece of greensward, plough and plant it with corn in drills; cultivate superficially, so as not to break the sod, but never to make hills; gather his corn crop, then run a shallow furrow through the rows, sow rye and timothy, and smooth off with a bush harrow—the second year cut his rye, and the third year his grass. Two acres thus managed produced 140 bushels corn, 69½ bushels rye and five tons of hay in three seasons.

The pamphlet contains an interesting paper, drawn up by the Rev. H. Colman, *on cutting and preparing food for cattle and horses*, in which many facts are adduced to show the saving of fodder effected by the practice. *We* quote two of the many cases in the statement:

1. In 1816, Mr. Hale, proprietor of a line of stages running from Newburyport to Boston, purchased for his stable, from April 1 to October 1, six months, and fed uncut, 32 tons 4 cwt. 10 lbs. hay, at $25 per ton,.....$800 00
From October 1 to April 1, 1817, he purchased for the same teams, and cut, Straw 16 tons, 13 cwt. 3 qrs. 10 lbs.....160 23
Hay 13 tons 14 cwt 1 qr. 0 lbs.....350 00
——$510 23
Deduct on hand April 1, by estimation, four tons more than there was Oct. 1, at $25 per ton,..... 100 00
—— 410 23

Saving, by the use of straw cutter, in six months,..... $390 77
Consumed by 25 horses belonging to the Salem stage from April 1 to Oct. 1, 1816, and fed uncut, 22 tons at $30.....$660 00
Consumed by the same horses from October 1 to April 1, 1817, cut, Straw 15 tons 13 cwt.....$187 80
Hay 2 tons 15 cwt..... 81 00
—— 268 80

Saving in using chopped fodder,..... 391 20
Total saving in using straw cutter nine months, at Newburyport,.....$389 77
At Salem,..... 391 20
——$780 97

The horses had the same allowance of grain during both periods.

2. Mr. Shelden, of Beverly, took accurate account of feed required for his stock of fifty-one head of horses and neat cattle, when fed uncut and when cut; the result was, he saved $2 86 *per day* by cutting his fodder, besides "an increase of six gallons of milk per day from his thirty-five cows," and "likewise something for the improvement of the condition of his whole stock."

The trustees seem wisely determined to make provision for the next generation, in articles of the first necessity, wood and timber, by encouraging the planting of forest trees. They offer premiums amounting to $240, for the greatest number of oak, locust, birch, white ash and chestnut trees, raised from seed on an acre, the number in each case not to be less than a thousand. They also offer premiums amounting to $80 for the greatest plantation of mulberry trees; and also premiums for the best specimens of silk produced in the county. Massachusetts is giving substantial proofs of the utility of patronizing her agricultural societies, which New-York does not, or will not, understand.

Ex-President Madison.—The death of Ex-President Madison, though an event not unexpected, has produced a sensation in the public mind corresponding with the distinguished talents and exalted character of the deceased. He was born March 17th, 1750: was a member of the Legislature of Virginia, 1775; one of the Council of the same State, 1776; member of the Congress of the Revolution, and of the Convention which formed the Constitution of the United States; one of the principal contributors to that celebrated work "The Federalist;" was elected a member of the First Congress, in which body he remained many years; was made Secretary of State under Jefferson, March 5th, 1801; was inaugurated President of the United States, March 4th, 1809, in which office he continued, by re-election, eight years; died June 28th, 1836, in the 86th year of his age. Six days added to his life would have carried him to the 4th of July, on which memorable day all his predecessors in the office of President died, with the exception of Washington. The proud but melancholy list, now stands as follows:

	Died.		*Age.*
Geo. Washington,	10th Dec.	1799	68
John Adams,	4th July	1826	91
Thomas Jefferson	4th July	1826	84
James Monroe,	4th July	1831	73
James Madison	June 28	1836	86

COMMUNICATIONS.

The Dairy—Butter Making.

BY W. G.

Every dealer in the article knows that the most decisive test which can be offered of the skill and neatness of the housewife, or the dairy woman, is furnished by the quality of the butter offered by her in the market. If it is firm, rich, marrowy, and of proper consistence throughout; free from all specks and impurities; perfectly divested of the milk, and giving out that peculiar fragrance belonging to sweet and well made butter—the vender may be set down as one that understands her business, and the produce of whose dairy will always command the first price in the market. On the contrary, if the butter should be white, light and porous; full of particles of dirt, flies' legs, cows' hairs, and other nameless abominations; without being freed from the milk, and abounding in particles of the curdled milk from which the cream was taken—then the character of the dairy for neatness may be marked as suspicious, and prices must be arranged accordingly. The color of butter is no infallible test of goodness, although that which is moderately yellow will, other things being equal, be generally preferred; but where the qualities above named are present, be the butter white or yellow, its excellence may be relied upon. The quality of butter is not however entirely depending on the skill or neatness of the maker—much must be allowed for the kind of pasture or other food allotted the cows. For pasture, clean turf which is mostly composed of white clover, and has been laid down for a number of years, will be found sweeter and better than any other; and of the roots, carrots will make the best colored and flavored butter. No cow, however, kept entirely on roots, will produce as good milk and butter, as if fed partly on these, and partly on fresh grass or hay.

Every dairy woman is sensible that to produce the greatest quantity and best quality of cream, milk should be kept at a moderate temperature, and that the cream should be taken from the milk before the latter sours, as, if it is allowed to become thick, it is almost impossible to separate the curdled particles thus skimmed off from the pure cream, and these remaining in the butter, seriously detract from its appearance, and render it unfit to keep. After the cream has been taken from the milk, much of the goodness of the butter is depending on the temperature of the cream while churning. This point in ordinary dairies is not sufficiently attended to, or if noticed at all, only with reference to the speedy formation of the butter. Cream grows warm from churning, the rise being from four to six degrees, according to the time employed, and the state of the cream; consequently if the temperature of the cream is too high at the commencement of the operation, at the close it will be so much increased as to have a pernicious effect on the quality of the butter.

A few years since, by request of the Highland Agricultural Society of Scotland, a series of experiments was instituted by Mr. Ballantine, the owner of an extensive dairy, as to the proper temperature of cream for making butter, and the effects of different temperatures on the quantity and quality of the butter produced. Mr. Ballantine's Report, which obtained the premium from the Society, may be found in the "Library of Agricultural and Horticultural Knowledge," and is probably the best paper on the subject of making butter which has yet appeared. From Mr. B.'s experiments, it appears that the thermometrical range at which butter can be obtained, extends from 45 to 75 degrees of Fahrenheit. A great number of experiments gave 60 degrees, as the temperature at which the greatest quantity of butter could be produced from a given quantity of cream; and 55 degrees of temperature in the churn just before the butter comes, as that which affords the best quality, giving a temperature of 51 to the cream at its introduction into the churn. Repeated churnings at this degree of heat, "gave butter of the finest quality and color, the milk being completely separated from the butter, which when washed and made up into rolls kept for a fortnight without acquiring either smell or taste." Mr. Ballantine says—"Butter intended to be sent to the market sweet, should be carefully gathered from the milk with the hand, and the milk squeezed out of it. It should then be put into cold spring water, and after being well washed, it should be made up into rolls with wooden flappers, and put into cold water to firm, but should not be allowed to remain longer than is necessary to firm it, as the water will hurt both its color and flavor." The practice of *washing butter*, as putting the newly churned article into clear cold water is called, has we believe never prevailed to any considerable extent in the dairies of this country, whereas in England the practice is almost universal. The time it should lie in the water must be determined by the season of the year and the state of the butter, an hour being generally considered sufficient; and after being thus by washing and working completely freed from the particles of milk and of water, it is salted according to the notion of the dairy woman, and carefully put away for use or the market. Judge Buel condemns the use of water in the manufacture of butter, believing that it dissipates much of the fine flavor that gives to good butter its high value; yet in Orange county, which furnishes the best butter dairies in the state, and probably in the Uuited States, it is a common remark among the dairy women, "give us cold *hard* water, and we will not fail in making good butter." We do not think the washing of butter has been properly tested in this country, or at least the results have not been reported; and that dairyman who should institute a series of experiments with regard to the making of butter in this and other methods, and the effect on its qualities for table use and keeping, and should faithfully record and report the same for some of our agricultural journals, would confer a great favor on a large portion of the community. Some experiments made on a small scale by Judge Buel certainly go far to prove the excellence of unwashed butter for keeping; and had he at the same time put down one or two pots of washed butter in the same way, it would have gone far towards determining the course to be preferred in its preservation.

For salting butter, experience has shown that in butter intended to be kept any time, one ounce of good fine salt to a pound of butter is the proper proportion; where it is not intended to be kept, less may be used, according to the taste of the maker. Some persons have recommended that to a pound of salt should be added four ounces of finely pulverized loaf sugar. We have tried this method, and found the butter admirable. Dr. Anderson says—"In Ireland, (and few countries equal some parts of Ireland in the fine qualities of the butter,) the use of salt and saltpeter is recommended in the proportion of one ounce of fine rock salt, and one fifth of an ounce of saltpeter to twenty-eight ounces of butter." None but the finest and purest salt should be used for butter, as every extraneous matter found in the salt injures its quality, and produces a corresponding effect on the butter.

For preserving butter nothing more seems to be necessary than that the butter should be put down perfectly sweet and solid, in some vessel that is air tight, and then kept at a temperature between fifty-five and sixty or sixty-five degrees. The great secret consists in a low temperature, and the entire exclusion of air. Where considerable quantities of butter are to be put down, or packed, casks containing from 60 to 100 lbs. may be used. These should be made of white oak or ash, the wood to be boiled for three or four hours before working, and thoroughly soaked in cold hard water before filling with butter. Into this the butter in good order should be well pounded, and if possible the cask or firkin should be filled at a single operation. At any rate butter of different qualities or colors should not be mixed together, as in one case the bad will certainly injure the good, and in the other the mixing of different colors produces that mottled appearance so abominable to the lover of good butter. If there is not butter enough to fill the firkin at once, make a strong brine, clear and pure, and covering the butter with this, let it stand until you have more to put down, when the brine may be turned off and the addition made. There should be a small space left between the head of the cask, when filled, and the butter; this space should be filled with strong well boiled brine, introduced through a hole in the head, stopped with a peg, which may be taken out occasionally for a few days, as sometimes the shrinkage of the butter from the cask will require the addition of more brine. When observation shows no more is required, the cask should be placed where the temperature will remain low, and the butter will be found of a good quality.

But where the butter is intended for family use, the best way we know of keeping it sweet, is to put it down in stone crocks or jars which will hold from thirty to forty pounds. The butter should be packed close and solid as directed for firkins, leaving a space of one or two inches at the mouth unfilled. Then make a strong brine, carefully boiling and scumming it, and fill the jar with it. Place the jars in a cool sweet cellar; cover them carefully and securely to prevent any dirt getting in; examine them occasionally to see that the butter is covered with brine, and that the brine remains sweet and good. If a scum rises on the brine, turn it off and boil it, putting in salt if necessary, and scumming it until perfectly pure, when it may again be turned on the butter. Butter in this way has been kep

nearly two years perfectly sweet and good; indeed, where coolness is desirable, nothing is better adapted to promote it than stone. A few years since a friend of ours, as an experiment, filled a small firkin with butter in June, headed it up solid, and threw it into his well, where it remained till November, and when taken out was as sweet and fresh in taste as when put in. Perhaps, where the means existed of forming a vat in the dairy-house, and throwing into it a stream of cold spring water, this method of keeping butter in water might be advantageously adopted, as the water could not touch the butter, while it would keep it cool, and exclude the air at the same time. The making of butter is daily becoming a matter of more interest in this country; and any methods which shall add to the quantity without impairing its quality, or which shall ensure uniform excellence, will be hailed with satisfaction by numbers who are beginning to turn their attention to this branch of domestic economy. W. G.

Omitted Depredators.

BY OBSERVER.

Mr. Tucker—I perceive that a correspondent of your valuable journal has been furnishing you some papers on those beasts, birds, and insects, that detract so largely from the profits of the husbandman; but there are two of the most prominent ones he seems to have overlooked, and the object of this paper is to bring them before the readers of the Farmer, that their just deserts may be awarded. The first of these nuisances and pests of the farmer, is the Dog. Altogether they are most worthless and useless. Take them from the highest to the lowest, from the mastiff to the lap-dog—puppy, whelp, hound, and cur-dog—all should by the farmer be placed under the ban of proscription, and banished from the premises. To use a common phrase, they all cost more than they come to; and if they are sometimes found useful, such instances are the exception, not the rule. That the dog has exhibited at times noble qualities, I do not deny; but the question with the farmer is one of profit and loss, and if he keeps a dog he should keep him for the same reason that he keeps a horse or an ox, because he is profitable. But, says one, "I cannot do without a dog; I must have one to drive hogs from my door, my yard, or my sheds; I must have one to keep my own creatures and those of my neighbors' out of mischief; to watch my house and barn and keep off thieves and vagrants." Well, then, keep a dog, but let me tell you that if you rely on a dog fence, neither your dog or yourself will find the business of keeping creatures out of mischief a sinecure. No, kill your dog, and instead of relying on him, put up your fence as a farmer should—do not leave rails off, or your fences down, to invite cattle to be unruly; kill your dog, and my word for it, unless your experience should be very different from mine, the two barrels of soap you may annually make from what your dog would eat—that is, if he is properly fed at home, and not left to prowl over the neighborhood and steal his living—will more than pay for all you will have stolen from you. It is a fact which will not admit of dispute, that the dogs in this state kill more sheep, and in this way injure the farmer more, than all the wolves to be found in our limits, and to reward the killing of which, much money is and has been annually paid; and more human lives yearly fall before that incurable and frightful malady the hydrophobia, than have been lost by wild beasts since the settlement of the country. I say then, let the dog law of the state be strictly and rigorously enforced, and if a man will keep a dog, or half a dozen of them, to vex and injure his neighbor, let him pay for what he considers such a privilege; and when they are caught trespassing, let the penalty of the law in its length and breadth speedily overtake the depredator.

The other instance of omission on the part of your correspondent to which I have alluded, is in the case of an animal that perhaps cannot be better described than in the words of the celebrated Lawrence, who in his Theory of Life, gives the generic and specific characters thus, viz: "Order, bimanum (two handed); genus, homo; the species, single, with several varieties: characters, erect stature; two hands, teeth approximated and of equal length; the inferior incisors perpendicular; chin prominent; rational, endowed with speech, unarmed, defenceless." Had the learned professor added, "wonderfully addicted to theft," the description would have been complete. The very frequency of this animal's depredations have contributed mainly to the impunity it enjoys. Straddling and shock-headed—idle and vicious in the extreme—it lazily passes the hours of labor, coiled up in the sunshine, or otherwise inviting repose; but no sooner does darkness come on than it rouses its energies, and commences all manner of depredations. Omniverous in its tastes and habits, nothing comes amiss; and in its predatory excursions the most incongruous articles are gathered into its receptacle of plunder. Pork from the barrel, butter from the larder, grain from the granary, corn from the field, hams from the smoke-house, fowls from the roost, clothes from the drying-line, melons from the bed, and all kinds of fruit from the tree, are appropriated to their use as inclination may dictate, or opportunity offer. They have been observed to be particularly fond of new things, and in some sections of the country the propagators of rare and valuable kinds of vegetables and fruits, find it difficult to preserve enough from their ravages to furnish a specimen of the kind and quality. A few years since I called on a friend very nice in such matters, and where a number of gentlemen happened to be present. He was showing us his fruit orchard, and among other rare specimens, exhibited to us a new plum, which he valued very highly, and which then had several nearly ripe and beautiful looking plums on the tree, the first it had borne. While describing the reported qualities of the fruit to us, a bare-footed and wild looking animal of this depredating kind approached; and listening to what was said, no sooner had we left the tree to taste a delicious peach, than with a most mortifying dexterity he seized on the valued plums, which speedily disappeared in his capacious gullet, leaving the owner to wait another year for the uncertain privilege of fully testing the qualities of his own fruit. All good citizens should unite to check at once the operations of these light fingered pilferers; and as the law is fortunately in this case on the side of the honest man, nothing seems to be wanting but active co-operation, and a vigorous enforcement of its salutary provisions. Observer.

Putting Down Posts.

BY W. G.

A correspondent of the Farmer, (No. 21, page 166, current volume,) has recommended sitting posts by sharpening the foot, and with a heavy mallet driving them into the ground to the desired depth. In some soils such a method may do well, but in those which are inclining to heave by frosts, or in other words are clayey, I should not advise its adoption. I am sensible they can be set very rapidly, but I have tried the plan of sharpening and driving, thoroughly, years ago, and in the soil I have mentioned, decidedly prefer digging holes to a proper depth, leaving the posts square at the bottom, and filling in with stone rammed down. Independent of the lifting out of posts by the frost, I have found that the wedge like shaped bottom of the post has, on the least motion, and the wind will give such a fence a slight movement, a continual tendency to raise itself from the ground, lifting the fence with it; and this objection must hold good on any kind of soil, as it operates on precisely the same principle we adopt when we extricate a wedge from a log by simply working it backwards and forwards. W. G.

From the Cultivator.

Agricultural Statistics of Great Britain.

It is a notorious fact, that many districts of our country, that were originally fertile, have materially deteriorated, and have ceased to yield their wonted return to the husbandman; that large sections, which formerly produced the finest wheat, have ceased to yield it, or to yield it but in diminished quantity, and of inferior quality. We turn to Maryland, Virginia, New-England, and many parts of our own state, for evidence of the first position, and to West Vermont, and some of our northern counties, and the valley of the Mohawk, for ample proof of the latter. This poverty of the soil, and its failure to yield its accustomed increase, has resulted wholly from bad farming—from ignorance, in the cultivator, of the immutable laws of nature, upon the observance of which agriculture can alone long prosper. It is equally apparent, that unless a change takes place in their management, these lands will continue to deteriorate, and their produce to decrease. How then can the evil be arrested, the lands restored to their wonted fertility, and the inhabitants rendered thrifty and independent? That this *can* be done, is fully demonstrated by the experience of the last thirty years in our own country. Dutchess, thirty years ago, began to reform her husbandry, under the guidance of intelligent men, and we have seen that the products and value of her lands have increased four fold in consequence of these improvements—and every class of her population have prospered with her farmers. Other districts, and individuals, in every section of the state, are following in the good work. But we are about to show the progress of agricultural improvement in Great Britain—to contrast the present with the former condition of her husbandry—and to point out the prominent causes of her improvements, in the hope, that the facts we shall detail will be both interesting and profitable to our countrymen. We have abstracted these facts from a review, in the Edinburgh Review, for January, of some recent British agricultural publications.

The first evidence of agricultural improvement in Great Britain, which we shall cite, is af-

forded by the facts, that during the last half century, her population has considerably more than doubled,—that this population live far better now than they did formerly—and that they are entirely subsisted on the products of British agriculture, the importations of provisions during the four last years having been virtually nothing.

The population of England increased in the half century from about seven to fifteen millions, and that of Scotland in nearly the same ratio—In 1760, and subsequently, most of the population subsisted on coarse grain, with little or no meat. Thirty years ago "small farmers, agricultural laborers and those employed in the mines, almost invariably used barley." "At the end of the American war, no wheaten bread was to be seen in the farm houses, country villages and minor towns of Scotland, and but little even in larger towns. Oat cakes and barley bannocks were there universally made use of." Now, every where, wheaten bread is said to be generally eaten. In 1763, the slaughter of bullocks, and the supply of the public markets, was a thing wholly unknown even in Glasgow, which, had then a population of nearly 30,000. All now consume butchers' meat. "Hence," says the reviewer, "it appears, that the extension and improvement of agriculture in Great Britain, since the middle of the last century, has been so very great, that, besides enabling the country to appropriate, additional five, but more probably seven millions of quarters of grain (the quarter is eight bushels) to the feeding of horses, it supplies food for very considerably more than double its former population, and those too living in comparative ease and affluence. "The history of the world may be ransacked in vain for a parallel instance of improvement in any old settled country."

2d. This improvement is manifested by the increased number and weight of her farm stock. In the middle of the last century, the annual sales a Smithfield amounted to about 74,000 head of cattle, and about 570,000 sheep. In 1831 these sales amounted to 156,000 head of cattle, and 1,280,000 sheep. The average weight at the former period was, neat cattle 370 lbs. and sheep about 28 lbs. Now the average weight of the first is 800 lbs. and of the latter 80 lbs.—"Hence," continues the reviewer, "on the most moderate computation, it may be affirmed, that the consumption of butcher's meat in the metropolis, as compared with the population, is twice as great at this moment as it was in 1750, and in most parts of the country the increase in the consumption has been still greater."

3d. This improvement is shown by the increased products of the soil, which it is alleged have been quadrupled.

Wheat was reckoned a curiosity in Scotland a century ago, and a field of eight acres, near Edinburgh, excited the attention of the whole neighborhood, and numbers came from a great distance to see it. "We affirm," says the Review, "that the wheat culture has increased in Scotland, generally, in a *tenfold* proportion, since 1780." At the period referred to, the whole north-western part of England, which is now one of the best cultivated districts of the empire, consisted of mere sandy waste, sheep walks and warrens, worth little or nothing, like millions of acres in our own country, which are deemed barren and waste, but which, under proper management, might be made to yield very profitable returns.

"Previously to the peace of 1763, agriculture almost every where in Scotland was in the most barbarous and depressed state imaginable. There was no rotation of crops; fallows were unknown except to one or two counties; the process and implements were alike wretched: great numbers of cattle perished every spring; the occupiers were in extreme poverty; and famines were every now and then occurring, that sometimes laid waste extensive districts. At the beginning of the last century, and for long after, lands, even in the Lothians, were uniformly divided into *infield* and *outfield*, (that is, to adopt our phraseology, "*suitably divided into meadow, pasture and plough land.*") The whole manure made on the farm was laid on the former, which was ploughed and cropped without intermission, so long, at least, as it would bear any thing. Neither turneps, nor clover, or potatoes, had been so much as heard of; but corn followed corn in unbroken series. The infield was divided into four divisions or breaks, and were cropped successively with peas, wheat, barley and oats; and the returns were about *three times the seed.*"

What a just picture do we here find of the *present* condition of many districts in our own country.

The writer then goes into a comparison of the product of 100 acres, as cultivated under the old system of permanent meadow, pasture and plough land, and as now cultivated, under the system of alternating husbandry, with turneps, clover, &c. upon his data, the weight of the materials produced annually, as food for cattle and manure, was as follows:—

Under the old system,.....42 tons.
Under the new system,.....577 tons.

showing a balance in favor of the new system of husbandry, of 533 tons per annum, being more than twelve times the quantity produced under the old. "As to the question of comparative profit, it would be easy to show, from unquestionable data, that the new system is as superior to the old, in this respect, as it is in the supply of manure." The sandy wastes, sheep walks and warrens of Norfolk, &c., have been converted into highly productive arable land, by enclosing, marling, and the aid of turnep husbandry, which is, as it were, the corner stone of the Norfolk or improved system of husbandry.

The same practice that had made sandy wastes yield the most luxuriant crops of wheat and barley, in Norfolk, has been gradually extended, with similar effects, to many other parts of the kingdom. The produce in corn of the light soils, in all the moderately well cultivated districts of the empire, has, in consequence, been more than trebled; at the same time that a vast supply of green food has been obtained for the feeding of cattle and sheep, and the production of the most valuable manure.

"With the exception of some counties in the south and west of England, which continue in a comparative stationary state, improvements have been every where carried on with extraordinary spirit. Among the principal of these may be specified improved drainage, a better rotation of crops, the general use of bone manure, and the opening of new channels of communication. Drainage lies at the bottom of almost every emelioration; and it is prosecuted to an extraordinary extent. The practice of furrow draining (that is, by covered drains between the ridges) is now widely diffused over the north and east of England, and is carried on, on retentive or clay soils, upon a scale that will hardly be believed by those not acquainted with the facts. Landlords and tenants are every where availing themselves of this new discovery. Many millions of tile are now manufactured in the neighborhood of Kilmarnock and other parts of the country, though the supply be still unequal to the demand. A better rotation of crops is now every where being adopted. The high prices of the war tempted the farmers to sow wheat too frequently, and without proper preparation; the fertility of the soil being in consequence materially impaired in many districts. [A salutary admonition to our wheat farmers of the west.] But this defect in the management is now nearly obviated. Clover and artificial grasses are kept longer down; barley is sometimes substituted for wheat, and the fertility of the soil is preserved." "But of all the recent improvements in agriculture, the introduction and general use of bone manure is perhaps the most important." By it the turnep crop has in some cases been increased *ten fold*, and in few less than *four* or *five* fold its former bulk. A single farmer in Lincolnshire, raises 600 acres of turneps, dressed almost wholly with bone manure. And, to quote again our author, "it is the opinion of practical men of the highest respectability, and intimately acquainted with the state of agriculture, that the raw produce of the island might be well nigh DOUBLED, *without any greater proportional expense being incurred in its productions,*" owing to the backwardness in improvement of many of the counties.

In reference to the improvement in stock husbandry, by Bakewell, Culley and others, the writer makes the following pertinent and just remarks:

"It may be worth while to remark, that much injury has arisen from the injadicious attempts to improve native breeds of cattle. This has been generally occasioned by prematurely endeavoring to increase their size, which is always determined by external causes, such as the climate, the quantity and species of food the animal can readily obtain, &c. It is to the immensely increased supply, and better quality of food, that the increased weight of our cattle is to be principally ascribed. An improved system of breeding would have improved the symmetry of the cattle, and increased their aptitude to fatten; but, without an increase of food, it would not have materially added to their size. In point of fact, too, the latter is an inferior consideration. The grand object that the prudent agriculturist should keep steadily in view, is the obtaining the greatest possible return for his outlay; and he will prefer that kind of stock, and that breed, of any kind, that will pay him best for the food consumed. The value to which an animal may ultimately be brought, is a subordinate consideration; the profits of breeding, as of every thing else, being determined, not by the absolute price of the produce, but by its price as compared with the expenses incurred in bringing it to market. Mr. Cully's opinion is, "that of all animals, of whatever kind, those which have the smallest, cleanest, and finest bones, are in general the best proportioned, and covered with the best and finest grained meat; I believe they are, also, the hardiest and healthiest, and most inclinable to feed; able to bear the most fatigue while living, and worth the most per pound dead. It is certain that animals, whether too large or too small, will gradually accommodate themselves to the size best adapted to their pastures; but while the larger animal becomes unhealthy, and degenerates in its form and valuable properties, the smaller animal increases in size, and improves in every respect."

The impression that we would hope to make upon the minds of the readers of the Cultivator, is, that our husbandry is as susceptible of improvement as that of Great Britain was fifty or sixty years ago; and that the same means that have quadrupled her products may be successfully employed to augment ours; that drainage, alternation of crops, the general introduction of green crops, as turneps and the cultivated grasses, and the husbanding our manures—the use of lime, marl and gypsum—are the true basis of improvement; and that if we would compete with England in fine cattle, we must imitate her example in providing for them more abundant and nutritious food.

It should be borne in mind, that half a century ago many of the lands in Great Britain were in the condition of millions of acres in our own country—either left in their wild state, as unfit for culture, or exhausted of fertility by constant cropping, and thrown into commons and wastes, like much in Maryland, Virginia, and elsewhere; that it is this description of lands which have been enclosed, reclaimed, and brought into a highly productive state, by the *new system of husbandry*—the alternating, the clover, the turnep, and the draining system; and that this improvement has taken place under burthens, in the shape of tithes, poor rates and rents, to which the American farmer is in a measure a stranger, and which here would be deemed highly oppressive.

And why cannot WE *adopt the same improvements, with certainty of success, that have proved so highly salutary in our father land?* We have as strong arms, and as stout hearts, as our ancesters. But we lack the necessity which there prompts to industry and economy, and we fear the intelligence—the lights of science, that there guide and direct the labors of husbandry. Yet we are on the high rode of improvement. Agricultural publications are multiplying—they are improving

in character and in patronage—and it is our firm conviction, that they are adding ten per cent. every year to the amount of our agricultural products. The establishment of schools of practical and scientific agriculture, which even those advanced in life may yet hope to see established among us, which shall concentrate and teach all that is most useful in theory, and most perfect in practice, will accelerate our improvement in progressive ratio. Well does the agricultural press deserve public countenance and support. It excites none of the bad propensities of our nature; but it tends to lessen the wants and the vices of the human family, and to diffuse useful knowledge, increase industry, and promote virtue and happiness. It is scattering the good seed, pure and unmixed, free from cockle, chess or tares—the seed has germinated, and under the fostering care of the husbandman it must continue to grow, and to yield an abundant harvest.

Summer Pruning.

We are advocates for summer pruning, both from experience and philosophy. And we invite those of our readers who are wedded to the old practice of pruning at other seasons, to examine the reasoning in favor of our practice, contained in the following extract, which we make from the essay on useful and ornamental planting, published by the society for the diffusion of useful knowledge. It contains interesting facts in vegetable physiology, and indicates the propriety of early fall planting.—*Cult.*

"Every individual leaf of a tree is furnished with its own particular series of vessels for the course of the sap, and not only prepares and elaborates the sap for the increase of substance of its own branch, but also for the parent stem and root. Hence it is that trees regularly furnished with branches from the base upwards, have more tapering stems than trees with branches confined to the upper half of the stem, the increase being equal, from the point where the branches begin, downwards to the root; or, in other words, whatever length of stem from the root upwards is destitute of branches, that part of it, from the period of losing them, increases in size equally throughout. [Hence the importance of taking off the lower branches of trees intended for timber; and of taking out the center shoot of fruit trees, when they have attained a sufficient height to form a top—the object in one case being to obtain a straight clean bole, for timber, and in the other a low wide-spreading top for fruit—a straight lofty tree giving the most and best timber, and a low and spreading one giving the most and best fruit.] Without a just knowledge of this principle in the economy of vegetable life, the important process of pruning in the culture of forest trees, cannot safely be performed by the forester. That the sap never ceases wholly to move, is evident in the increese of the roots and buds during the winter, when the plant leafless; but its descent is particularly distinguished for greater force and activity at two periods of the year, spring and mid-summer. The ascent in the spring is the strongest, and continues until mid-summer, gradually diminishing in force as the new branches and leaves are perfected. This generally takes place about the beginning of July, when an apparent cessation of ascending motion in the ascending sap immediately succeeds, and continues usually for the space of a fortnight or three weeks—[during this apparent time of cessation is the proper time to prune] according to the age of the plant and the state of the weather. A second ascent of sap, and growth of shoots, now take place, but with diminished vigor; unless from accident, disease or unfavorable weather, the spring growth has been checked, and the first flow of sap prevented from being exhausted in the production of branches, leaves and blossoms. It is worthy of remark, that those shoots which form fruit, flower or seed buds, have seldom, if ever, any second growth; but remain without increasing in length until the next spring. The mid-summer growth is almost always confined to those branches which carry wood buds only. *After the second growth is completed, the effects of the descending sap in the formation of new bark is apparent in the healing up of wounded parts of the stem and branches, which now proceeds with more activity than during any other season of the year.* Branches pruned off smooth at the stem, though the latter be healthy, young, and containing a perfect pith, *before or shortly after the completion of the midsummer growth, do not produce shoots from the edge of the wounds caused by their removal, which always happens, more or less, when pruning is performed on free growing trees after the fall of the leaf, and before the full development of the spring shoots and leaves* It is to be observed, however, that the reproduction of branches from the edges of a wound is greatly assisted by leaving a portion of the branch or shoot on its parent branch or stem." See p. 4, 16, 17.

Haymaking.

Why is it invariably recommended, when medical herbs are to be preserved for use, that they be dried *in the shade?* For two plain reasons; first, because an intense summer's sun deprives them of a portion of their medical virtues; and secondly, to prevent their quality becoming deteriorated by dew or rain. The same precaution is observed in the curing of hops, and it is no less important in the curing of hay. The sun abstracts much of the best properties of both. It is for these reasons, that in many of the best farming districts, the grass is never *spread* from the swath; but, after it has partially dried there, it is *cured* in the cock, where it dries evenly, that is, the moisture becomes equalized in the mass, and the stems dry as fast as the leaves—and where neither the sun, nor the rain, nor the dew, are liable to do it material injury. And we contend, that there is not only a great improvement in the quality of the hay, by this process of curing, but an increase in quantity, the leaves and finer parts being all preserved, and a manifest saving in labor. The labor of spreading and raking is in a measure saved; the grass being cocked from the swath with the fork, and after it has cured there, the hay being partially spread for two or three hours to complete the process. We gave our mode of management in our last volume, and it might be deemed superfluous to repeat it here; but earnestly beg, that farmers who have not adopted it, will give it at least a partial trial this month, especially with clover. We estimate the gain in this crop, by the new over the old mode, at least one-third.—*Cultivator.*

"Come, let us reason the matter together."—It is a practice with many farmers, in ploughing sward ground, to endeavor to turn the furrow-slice entirely over, so that the grass side shall lie flat in the preceding furrow; while others lay every furrow-slice on the one which precedes it, so that it reposes in an angle of 45°. The latter is called the improved mode of ploughing. When the furrow-slice is laid quite flat, "the weight and tenacity of the soil consolidate its surface almost immediately, and obstructs the action of the weather in breaking down the texture of the soil, as well as that of the harrows in raising a tilth, or the greatest depth of mould for covering the seeds," and if the surface is level and the soil tenacious, the water when in excess, having no passage under, reposes upon the top of the sod. But when the furrow-slice is lapped upon the preceding one, in an angle of about 45°, every furrow forms an underdrain for the passage or reception of the water, leaving the surface dry; the greatest possible surface of soil is exposed to the influence of the atmosphere; the soil is kept loose and porous by the breaking down of the sod, as the roots of the grasses in it decay, and the harrow, by reducing the projecting angles of the furrow-slice, readily produces a fine and deep tilth.

A lot of 17 1-2 acres, within a mile of the centre of the village of Poughkeepsie, was recently sold at the rate of $500 the acre.

List of Payments

For the Farmer from June 3, to July 8, 1836.

For vol. 6.
S. P. & C. A Keyes.
Newton Sheldon.
Harvey Smith.
E. W. Fairchild.
J. J. Hopper.
Dan'l D. Kendall.
J. W. Allen.
Fred'k Whittlesey.
J. W. Bacon.
Taber Ward.
For vols. 5 and 6.
Robt. K. Barns.
John L. Aldrich.
Last half of vol. 6.
Giles Benson.
J. Ballard.
Jos. Gilmore.
James Cockshutt.
From July 1, 1836, to July 1, 1837.
Ambrose Burr.
James P. Gager.
J. F. Burdick.
From July 1, 1835, to July 1, 1836.
Charles Webb.
Daniel Gallatin.
From July 1, 1835, to July 1, 1837.
Wm. Fiegeken.
Wm. Wilson.

Wm. P. Comstock, for vols. 6 and 7.

Aaron Reed, Jr. from July 1, 1833, to July 1, 1836.

Daniel Fullerton, from June 1, 1836, to June 1, 1837.

Edward Houghton, Jr. to No. 10, vol. 7.

Edward P. Livingston, from July 1, 1836, to Jan. 1, 1838.

Arthur W. Magill, from April 1, 1836, to April 1, 1837.

Wm. Scott, for first half of vol. 5.

Meteorological Table,

KEPT AT ROCHESTER, FOR JUNE, 1836.

	10 A. M.				10 P. M.			
Days.	therm.	barometer.	winds.	sky.	therm.	barometer.	winds.	sky.
1	62	29,60	E	fair	58	29,55	E	fair
2	70	29,55	E	do	55	29,66	E	do
3	60	29,50	S E	do	62	29,55	S E	cloudy
4	76	29,55	S E	cloudy	64	29,55	S E	fair
5	76	29,60	S E	do	68	29,60	E	do*f*
6	74	29,75	S E	do	66	29,60	E	cloudy*a*
7	76	29,60	S W	fair	68	29,55	E	do*g*
8	77	29,70	N E	do	77	29,65	N W	fair
9	72	29,75	N	do	70	29,75	N E	do
10	75	29,65	S	do	76	29,50	N E	do
11	78	29,35	S W	do*a*	56	29,50	N W	cloudy*a*
12	63	29,45	N W	do	54	29,70	N W	fair
13	70	29,75	E	do	57	29,70	E	do
14	74	29,60	W	do	57	29,60	N W	do*f*
15	62	29,75	N E	do*b*	54	29,70	N E	do
16	74	29,60	S W	do	70	29,55	E	cloudy
17	82	29,45	W	do	62	29,45	N E	fair*a*
18	82	29,45	W	do*c*	67	29,40	S W	cloudy*d*
19	62	29,40	N E	cloudy*a*	55	29,40	N E	do*h*
20	54	29,35	E	do*c*	54	29,35	E	do*h*
21	60	29,40	N E	do	55	29,45	N E	do*h*
22	66	29,55	N E	do	57	29,50	E	do*h*
23	66	29,45	S E	do*d*	60	29,50	S E	do
24	70	29,55	S	fair	58	29,60	E	fair*h*
25	64	29,65	S E	cloudy	62	29,60	S E	cloudy*h*
26	70	29,60	S E	do	57	29,60	S E	do*i*
27	76	29,60	E	fair	60	29,60	E	fair
28	72	29,60	N	do	62	29,55	N W	cloudy*i*
29	70	29,55	E	cloudy*c*	58	29,55	E	do
30	78	29,55	S W	fair	68	29,60	S W	fair

MEAN.—Ther. 66.0—Bar. 29.56—Rain 3.6 in.

a Showers—*b* spring water 50°—*c* thunder storms during night—*d* rainy—*e* rainy all night—*f* small showers—*g* thunder and lightning west—*h* very rainy all night—*i* small showers all day.

Valuable Books for Farmers.

CHAPTAL'S Agricultural Chemistry, price $1.25
Comstock on Silk, price 37 1-2 cts.
Cobb do. do.
Nuttall's Ornithology of Land Birds, price $2,50.
do. do. Water Birds, price $2,50.
Hind, Mason, and American Farriers.
Bushby on the Vine, price 50 cts.
Smith on the Honey Bee, price 37 1-2.
Fisher on the Vine, price 75 cts.
Also—Odd volumes of the Genesee Farmer.
For sale by HOYT & PORTER,
july 9 No. 6 State street.

The Northampton Silk Company is prosecuting its incipient operations here with great energy and vigor. The grounds are situated about three miles west of our village, occupying about three hundred acres, constituting an immense tract of good meadow and suitable upland. We have examined the premises in company with Mr. Whitmarsh, very carefully, and were surprised at their extent and the liberal scale upon which they intend to carry on silk manufacturing operations. Through the centre of the company's lands, a fine stream of water flows, with ample buildings for present uses and water power for almost any extent of Silk Weaving.

Thus far, operations have mainly been confined to preparing the soil for trees, and in setting out roots and cuttings from the various species of Mulberry purchased in France and Italy by Mr. Whitmarsh. No White Mulberry is used, unless it is for engrafting into other kinds, for the purpose of forming hard wood. About one hundred acres will be covered this year with the trees, arranged in rows four feet apart, and it is computed that over one hundred thousand plants have already been set out this season. The trees imported from Europe are not replanted, but cut up into pieces of half a foot long, then set in the earth, and in this way, the plants are almost indefinitely multiplied. They throw out roots with ease, the shoots start soon and the foliage expands rapidly.

It is not designed to feed Worms this season. All the surplus tops of the plants, will be taken off this fall, and used to set over the remaining grounds the ensuing spring. No raw silk can therefore be had this season, from their own plantation, but the company have on hand a large quantity from France, besides Cocoons, and preparations are now actively making for the immediate manufacture of silk goods. Some machines have arrived, both from Europe and of domestic construction, of the most approved make. both for reeling silk and weaving it, and in the course of two or three weeks, both operations will be in progress by water power.

In reference to the operations of the Company, little else is designed this season, but to prepare the grounds, enclose them with new fences, get the trees growing, set up the machinery and have every thing in readiness for energetic action another year. The limits of the company are designated by new enclosures and ultimately the whole will be surrounded by a thrifty white mulberry hedge. The buildings on the premises at the present time, are three good farm houses, with out-buildings, and also a saw-mill and an edifice now preparing for silk machines. They intend hereafter to erect a spacious stone edifice for manufacturing purposes, on the bank of the stream opposite the old oil mill, and on the beautiful table land, a few rods east of that spot, overlooking the whole territory belonging to the corporation, a cocoonery eight hundred feet in dimensions, will be erected this fall. Various buildings for the accommodation of the hands employed, both in feeding the Worms and also in manufacturing the Silk, will soon be put up, constituting a new and beautiful village.

The Northampton Silk Company, from the preparations in progress—the extent of its soil under cultivation—the innumerable trees growing and yet to be set out—the millions of worms hereafter to be fed—the thousands of bushels of cocoons to be reeled and the great extent to which the manufacture of Silk goods will be carried, cannot employ, when in full operation, much less than two hundred hands. We venture to predict, that in less than two years—as its capital extends to two hundred thousand dollars—it will be the most extensive, systematic and well organized Silk Company on the American continent.—[Northampton Courier.]

Mr. Whitmarsh, President of our Silk Corporation, has sown this spring great quantities of mulberry seed, brought out by himself from France and Italy. It vegetates well and has come up vigorously, and although not precisely the Morus Multicaulis, it is a plant preferred in Europe, on account of its hardy character, affording, at the same time, an abundant supply of the largest and most nutritious foliage. From the extent of the ground occupied by these plants, he must have some two or three millions growing. They are sown in drills and look like peppergrass, and from this source he will be able to supply, not only the great wants of the Silk Company, but another season, any person to an indefinite extent. These plants, by the way, are not designed by nature, as *trees*, nor are they cultivated as such in Europe, but merely as a shrub, which, instead of exhausting its powers in the formation of wood, expands its juices in the growth of large and nutritious leaves. This important fact, which we but last week ascertained from Mr. Whitmarsh, should be extensively known, so that the mere question, whether the Chinese Mulberry is hardy, sufficiently so for our climate, is less a matter of serious consequence. He says distinctly, that the mulberry trees in France and Italy, those kept for the use of worms particularly, are little else than bushes, from whence the leaves are plucked with little labor, and without injuring the trees. They are kept down by annually taking off the tops for cuttings, and by using the leaves which exhausts the sap and prevents its running into wood. Mr. Whitmarsh and Dr. Stebbins, who have tested this matter carefully, say that the plants are more vigorous and will supply a greater quantity of leaves by annually taking them off at the surface of the ground, and allowing them to sprout every season fresh from the roots. His plantation of trees, opposite his Cocoonry, although the tops were killed by the last winter, are now covered with great quanties of foliage, immense leaves, all thrown out from the roots this spring. Yet he is satisfied the plant is hardy in ordinary seasons, as much so as many native trees. He has some plants near six feet in height, which were taken up last March near the foot of the Alps, where the earth was frozen solid, and the thermometer had been 12 degrees below zero! They are now very thriving trees. [Ibid.]

Extract from the Message of Governor Hill to the Legislature of New Hampshire.

"There is no pursuit that tends more directly to the independence and happiness of the people than agriculture. More productive as it is more necessary than any other, it is a matter of gratification and pride that it is a calling scarcely less reputable than that requiring the highest order and severest application of intellect. The most intelligent and most meritorious citizens are of those who labor with their own hands in agricultural pursuits. Of such men it is safe to make not only legislators to frame our laws, but magistrates to execute them. As agriculture has risen in estimation, so have our farmers increased in wealth and all the means of independence. In the westerly part of the State especially, of late years, the rearing of sheep and the production of wool has come in aid of other objects yielding ready money and often an unexpected profit.—One new subject of enterprise succeeds another; although in a rougher soil and a severer climate, the time may arrive when wool to New England shall be as important a staple as the wheat of the Middle, or the cotton of the Southern States.

The public attention has recently been drawn to the culture of the mulberry, the raising of silk worms, and the production of silk. That this important item of consumption and of traffic may be produced in the United States as extensively as in any country of the world, will not be disputed. The large changes of the tariff bring the bulk of articles of which silk is composed or is a component part, into the country free of duty; and from this cause it is extensively taking the place of the finer cottons and woolens. The value of imported silks into the United States for home consumption during the year 1835, according to the custom house returns, was nearly sixteen millions of dollars. The introduction of the article free of duty, instead of discouraging seems to have given an increased impetus to preparations for planting the mulberry and hereafter, extending the production and manufacture of silk. It remains to be tested whether the soil of our State shall be well adapted to the mulberry cultivation. Nothing yet appears to discourage the undertaking; and as the mulberry orchards may be planted without the investment of a large capital, it might be useful to afford legislative countenance to such towns from the State as already, or may hereafter possess farms employed in support of the poor, in the cultivation of the mulberry, as would fully test the fact of the adaptation of this climate to the production of silk.—As silk is deprived of what has been called the protection of the general government, it might not be invidious if the State should except such land as is actually employed in raising the mulberry from taxation until the orchard shall become productive.

Fire in the woods.—The St. John's, N. B. Advocate, says that a fire is raging to an alarming extent in the woods in the rear of Fredrickton. The atmosphere is loaded with smoke and is quite suffocating.

WILLIAM ATKINSON,
REAL ESTATE BROKER,
17, *Exchange-street, Rochester.*

BUYS and sells Farms and City Property on commission, and attends to the collection of Mortgages.

☞ Several valuable Farms for sale.
February, 1836. feb 20t6m*

Broom Corn.

20 BUSHELS New England Broom Corn Seed just received at the Rochester Seed Store. may 7

Mangel Wurtzel & Turnep Seeds.

A LARGE importation of superior Mangel Wurtzel, White Field, and other Turnep Seeds, together with a fine lot of English Garden Seeds, of the growth of 1835, just received at the Rochester Seed Store.

We are confident these seeds will prove of the first quality, and they will be afforded at a less price than heretofore.
may 7 REYNOLDS & BATEHAM.

Flower Seeds and Plants.

IN addition to their former stock, the subscribers are now receiving a new supply of Flower Seeds, including many rare and extremely beautiful varieties never before introduced here. Price, 6 cents a paper—20 varieties for $1, 50 varieties for $2, 100 varieties for $4.

DOUBLE DAHLIA ROOTS.

A fine assortment from the unrivaled collection of Messrs. Buel & Wilson, Albany. These will be potted and ready for sale in a few days.

GREEN-HOUSE OR PARLOR PLANTS.

A splendid collection in a fine healthy condition for sale at low prices.
apr 30-tf REYNOLDS & BATEHAM.

Monroe Horticultural Garden & Nursery.

THE subscriber offers to the public a choice selection of Fruit Trees, of French, German, English and American varieties, consisting of Apples, Pears, Plums, Peaches, Cherries, Apricots, Nectarines, Quinces, Currants, Gooseberries, Raspberries, Strawberries, Ornamenta Trees, Shrubs, Plants, Hardy Roses, Vines, Creepers, Herbaceous Perennial Plants, Bulbous Roots, &c. &c.

ALSO—A few hundred of the Morus Multicaulis or Chinese Mulberry, the White Italian Mulberry by the hunbred or thousand, Grape Vines of both native and foreign varieties, mosty of large size, for sale by the single vine, hundred or thousand, at reduced prices. The subscriber has a large collection of Green-House Plants of choice and select varieties, and in good condition.

☞ Orders for *Mr.* Rowe's Nursery received by the Publisher of this paper.

Catalogues will be sent to those who wish them, gratis, or may be had by calling at the office of the Genesee Farmer. ASA ROWE.
Greece, *Monroe co.* N. Y. Sept. 13, 1835.